

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
690 Walnut Ave.St. 150  
Vallejo, CA 94592-1133  
(707) 649-5453  
(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 99.28**WELDING INSPECTION REPORT****Resident Engineer:** Casey, William**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-027180**Date Inspected:** 10-Feb-2012**Project Name:** SAS Superstructure**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Contractor:** L&M Industrial Fabricators**OSM Arrival Time:** 700**OSM Departure Time:** 1530**Location:** Tangent, OR**CWI Name:** Thomas Dreyer**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** CCO 196 and 203**Summary of Items Observed:**

On this date, Quality Assurance Inspector (QAI) Kenneth Riley arrived at L & M Industrial Fabricators between the times noted above to randomly observe Quality Control (QC) personnel monitor the welding operations performed by L & M personnel on the fabrication of chimney parapet walls to the Tower Heads and Elevator brackets installed. The observations for the extra work being performed are under contract change orders CCO196 and CCO203 as stated below.

A) CCO196

B) CCO203

A). CCO196

This QA Inspector randomly observed L & M welding personnel Otis Smith (Welder ID #19), Bradford Schroyer (Welder ID #16) and Jake Schuld performing multiple function for CCO196. This included bevel cutting and grinding for the parapet walls using oxygen/acetylene cutting process mounted on a track for the semi-automated process. It was also noted that multiple stiffeners were being tack welded to flanges for the mounting plate walls. These stiffeners are for tower head west chimney. The item tacked are as follows;

A11e-f to A11g

A12e-g to A12h

A15e-g to A15h

The welders were performing these functions throughout the entire shift of this QAI.

L&M personnel were also assembling the crane assembly for tower head west and noted the following issues;

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1) The bolt holes for the crane assembly to bolt to the top plate has miss-aligned holes preventing the bolts to penetrate the top plate and underside brackets. This QAI observed that the miss-alignment appeared to be approximately 5mm.

2) During the observation on the interior where the top plate and bracket meet the faying surface is not in contact and it appears that since the bracket is already bolted at 2 points (4 bolts) the faying surface would not be able to come into contact as required by contract documents. The gap was measured by this QAI inspector as being 5mm to 8mm.

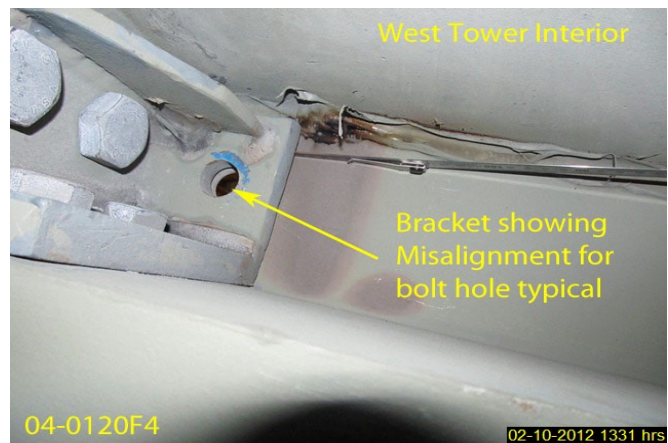
The fabricator's QC inspector Tom Dreyer has contacted his client for a RFI and is waiting for a response.

## B). CCO203

This QA Inspector randomly observed that L & M personnel have halted work on this Change Order due to the layout being in the wrong locations for the brackets and that the dimension had been taken from the bottom hole located at 1731mm instead of the top at 1419mm. This has caused the layout to be off by 312mm, there 4 additional holes at each location for the external and internal brackets (total of 8 holes). These are located on skin D (4) and the internal stiffener (4). Also noted is at the top location for the elevator brackets to be installed there is an internal channel preventing the fit up at this location. The fabricator's QC Inspector Tom Dreyer has contacted the contractor ABF who is sending a Request For Information (RFI) to the Caltrans Engineer for resolution to both of these issues.

This QAI spoke with the SMR about these issues and was informed that Caltrans has not received the RFI for the issues described above for both CCO196 and CCO203. Caltrans is still waiting for the Submittals.

Unless noted otherwise, all work observed on this date appeared to be in general compliance with the contract documents at the time of observations.



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## Summary of Conversations:

Basic conservation, fundamental to completion of the tasks at hand, occurred between this QAI and ABF QC personnel.

## Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy (510) 385-5910, who represents the Office of Structural Materials for your project.

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**Inspected By:** Riley, Ken

Quality Assurance Inspector

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**Reviewed By:** Levell, Bill

QA Reviewer